



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,686	10/31/2003	Patricia Brown	100203623-3	2884
7590	04/21/2004		EXAMINER	
			LEVIN, NAUM B	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/698,686	BROWN ET AL.
	Examiner	Art Unit
	Naum B Levin	2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 October 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15, 29 and 31-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15, 29, 31, 33 and 35-49 is/are rejected.
- 7) Claim(s) 32 and 34 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/31/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 33 is objected to because of the following informalities:

Claim 33, line 2, delete "DIMM", insert – dual inline memory module (DIMM) --.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-15, 29 and 35 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6, 694,490. Independent claims 1, 29, 31, 33, 36 and 43 are dissimilar to claims 1, 14 and 15 in the reference respectively because they recite various scope of invention. Claims 1-15, 29 and 35 in application disclose a device, apparatus and method for producing a device having a reduced memory capacity, but claims 1, 14 and 15 in the reference describe computer assembly comprising a computer and method for producing a dual inline memory module (DIMM) having a reduced memory capacity.

Art Unit: 2825

Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to a person of ordinary skills in the art to use the device, apparatus and method for producing a device having a reduced memory capacity for implementing it in the method described in U.S. Patent No. 6, 694,490.

For example, it would have been obvious to implement the method that includes:

A method for producing a device having a reduced memory capacity comprising:
providing a device having a memory capacity;
determining that the memory capacity of the device can be reduced;
determining an amount by which the memory capacity of the device is to be reduced; and
reducing the memory capacity of the device in accordance with the determined amount to produce a device having a reduced memory capacity and a dormant memory capacity.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 31, 33, 36, 37, 41-45 and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Dye et al. (US Patent 6,523,102).

Dye discloses parallel compression/decompression system and method for implementation of in-memory compressed cache improving storage density and access speed for industry standard memory subsystems an in-line memory modules including:

(31), (43) An assembly comprising an apparatus; and a device disposed in said apparatus and having a reduced/active memory capacity and a dormant/inactive memory capacity (col.19, ll.17-51);

(33), (44) A computer assembly comprising a computer; and a DIMM disposed in said computer and having a reduced memory capacity and a dormant memory capacity (col.19, ll.17-51);

(36), (42), (45) A method and apparatus for producing a device having a reduced memory capacity, the method comprising:

providing a device having a memory capacity (col.19, ll.17-51); and

reducing the memory capacity of the device by an amount of reduction in order to produce a device having a reduced memory capacity and a dormant memory capacity (col.19, ll.52-67; col.20, ll.1-36);

(37) The method of claim 36, wherein the device comprises a DIMM (col.19, ll.52-67; col.20, ll.1-36);

(41), (49) The method and apparatus, further comprising:

testing the device for memory-reduction accuracy to ensure that a desired amount of memory capacity was reduced in the device (col.17, ll.25-43).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 38-40 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dye in view of Dell et al. (US Patent 6,118,719).

8. With respect to claims 38-40 and 46-48 Dye teaches the features above but lacks a method and apparatus for producing a device having a reduced memory capacity further comprising making at least one memory bank as dormant/inactive.

Dell discloses self-initiated self-refresh mode for memory modules including:

(38), (46) The method and apparatus, wherein reducing the memory capacity of the device comprises:

making air least one row of a memory bank in the device as dormant (col.1, ll.46-67; col.2, ll.56-67; col.3, ll.1-13);

(39), (47) The method and apparatus, wherein reducing the memory capacity of the device comprises:

making at least one column of a memory bank in the device as dormant (col.1, ll.46-67; col.2, ll.56-67; col.3, ll.1-13);

(40), (48) The method and apparatus, wherein reducing the memory capacity of the device comprises:

making at least one memory bank of the device as dormant (col.1, ll.46-67; col.2, ll.56-67; col.3, ll.1-13).

It would have been obvious to a person of ordinary skills in the art at the time the invention was made to employ Dell's teaching regarding the method and apparatus for producing a device having a reduced memory capacity further comprising making at least one memory bank as dormant/inactive and use it in Dye's invention to improve an efficiency of the method and apparatus for producing device having reduced memory capacity.

Allowable Subject Matter

9. Claims 32 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest or render obvious:

An assembly comprising an apparatus; and a device disposed in said apparatus and having a reduced/active memory capacity and a dormant/inactive memory capacity, wherein said device having been produced in accordance with the following steps:

providing a device having a memory capacity;

Art Unit: 2825

determining that the memory capacity of the device can be reduced;
determining an amount by which the memory capacity of the device is to be
reduced; and

reducing the memory capacity of the device in accordance with the determined
amount to produce the device having the reduced memory capacity and the dormant
memory capacity.

Conclusion

10. Any inquiry concerning this communication or earlier communications from
the examiner should be directed to Naum B Levin whose telephone number is 571-272-
1898. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Matthew S Smith can be reached on 571-272-1907. The fax phone number
for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
Status information for unpublished applications is available through Private PAIR only.
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should
you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

N L

Alvarenga
Patent Examiner
AU-2825 -
4/16/04